INTRODUCTION

The purpose of this report is to describe the results of Phase III data recovery excavations at Block 1191, Wilmington, Delaware (Figure 1). Block 1191 is bounded by King, Second, French, and Front Streets, in Wilmington, Delaware (Figure 2). Phase III data recovery excavations were undertaken because proposed construction of railroad station parking facilities threatened destruction of archaeological resources which had been determined to be eligible for listing on the National Register of Historic Places (Cunningham et al. 1984). Appendix I includes the Block's determination-of-eligibility and Appendix II includes the data recovery plan for the Phase III excavations. The data recovery plan followed the opinion of the State Historic Preservation Officer's staff that a no adverse effect determination would be appropriate upon recovery of significant archaeological resources as per 36 CFR 800.4(c), and the Advisory Council's "Treatment of Archaeological Properties: A Handbook."

Appreciation for their support, administration, research and services is extended to all the involved individuals:

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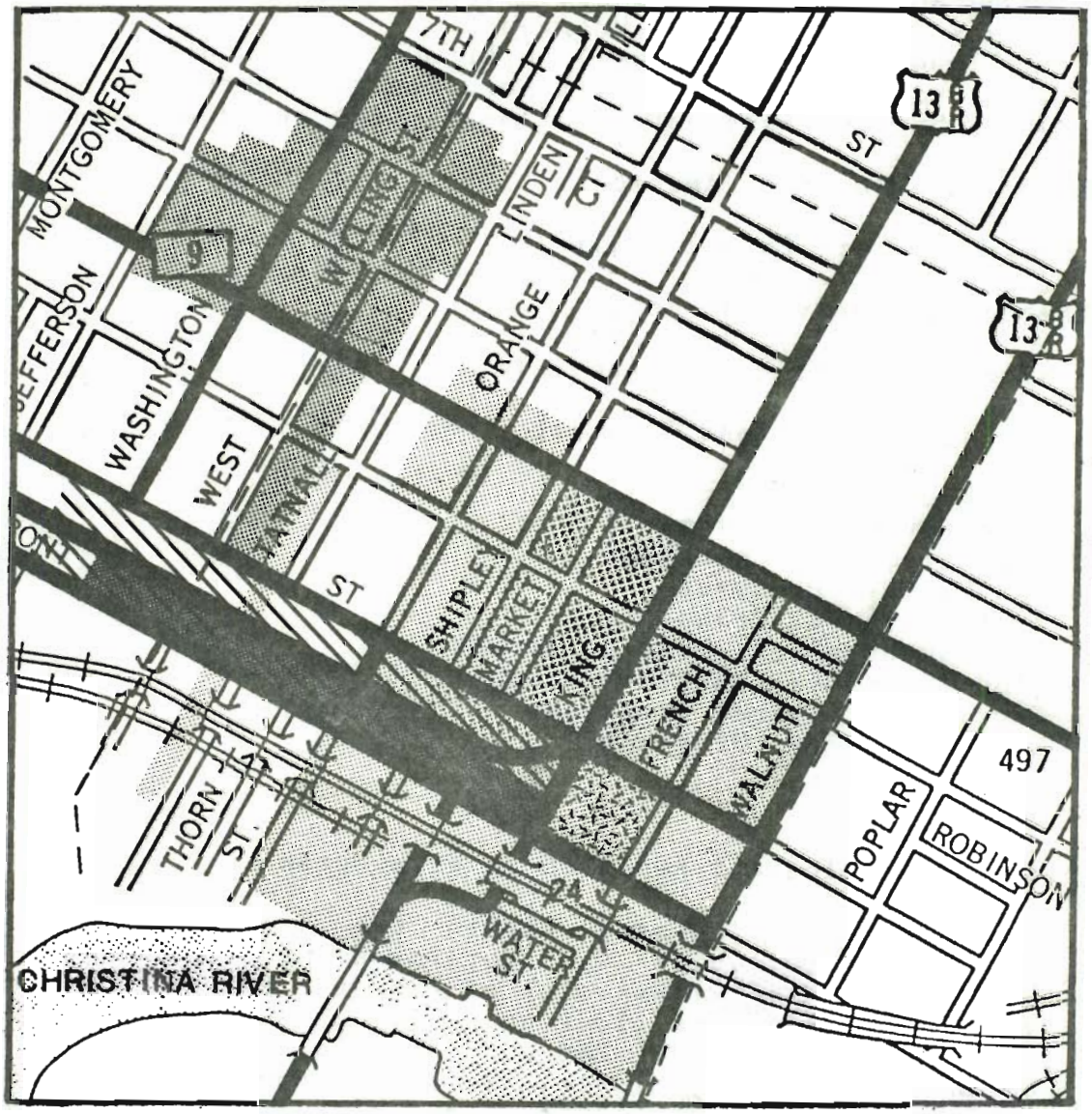
Previous Archaeological Research in Wilmington

Block 1191 is located within the Wilmington Boulevard Historic District, which was determined to be eligible for listing on the National Register of Historic Places on February 8, 1980. It is the next block east from the eastern boundary of the Wilmington Boulevard Project archaeological survey and mitigation conducted by Middle Atlantic Archaeological Research, Inc. (MAAR) in 1978-1979 (phases I and II), and by Soil Systems, Inc. (SSI) in 1980-1981 (phase III) (Figure 3). Beginning in 1964, several archaeological excavations were conducted within Wilmington (listed in Table 1). However, the Wilmington Boulevard Project, which began in 1979, was the first investigation to be conducted within the city under the guidance of an overall research design (Klein and Garrow 1983). The present project drew from the former project's experience and results in designing the Block 1191 research program.

FIGURE 3

Wilmington's Previous Excavations and Historic Districts



Lower Market Street Historical District
Quaker Hill Historic District
SSI Wilmington Blvd. Project
MAAR South Wilmington Blvd. Project
Block 1191
1740 settlement limits
1775 settlement limits

Table 1

Archaeological Investigations in Wilmington

1964	Lea-Derrickson House Brandywine Academy	dating of architectural features
1965	Peter Alrich House	salvage after demolition
1974	Jacob and Obadiah Dingee Houses	first comprehensive excavation
1979	Wilmington Boulevard Project	first research design
	Mendenhall House privy	salvage of looted feature
	Bureau of Archaeology and Historic Preservation testing program	

(Source: Guerrant n.d.: 26-34)

In June 1979, Middle Atlantic Archaeological Research, Inc. (MAAR) field-checked the King Street and Second Street frontages of Block 1191 during the Phase II survey project for the South Wilmington Boulevard study. The results of the work on this block are not included in the final report of their survey (Thomas et al. 1980), but the field notes were made available. Lots examined and features located are (Figure 4):

Lot 6--A brick-lined, four-foot diameter well, partially looted; a possible trash disposal area, also looted. The MAAR notes indicate that both these features may contain undisturbed deposits below the looter activity.

Lots 4 and 5--Another brick-lined well, of the same diameter, was found straddling the boundary between these two lots. The feature appeared to have been looted and re-filled.

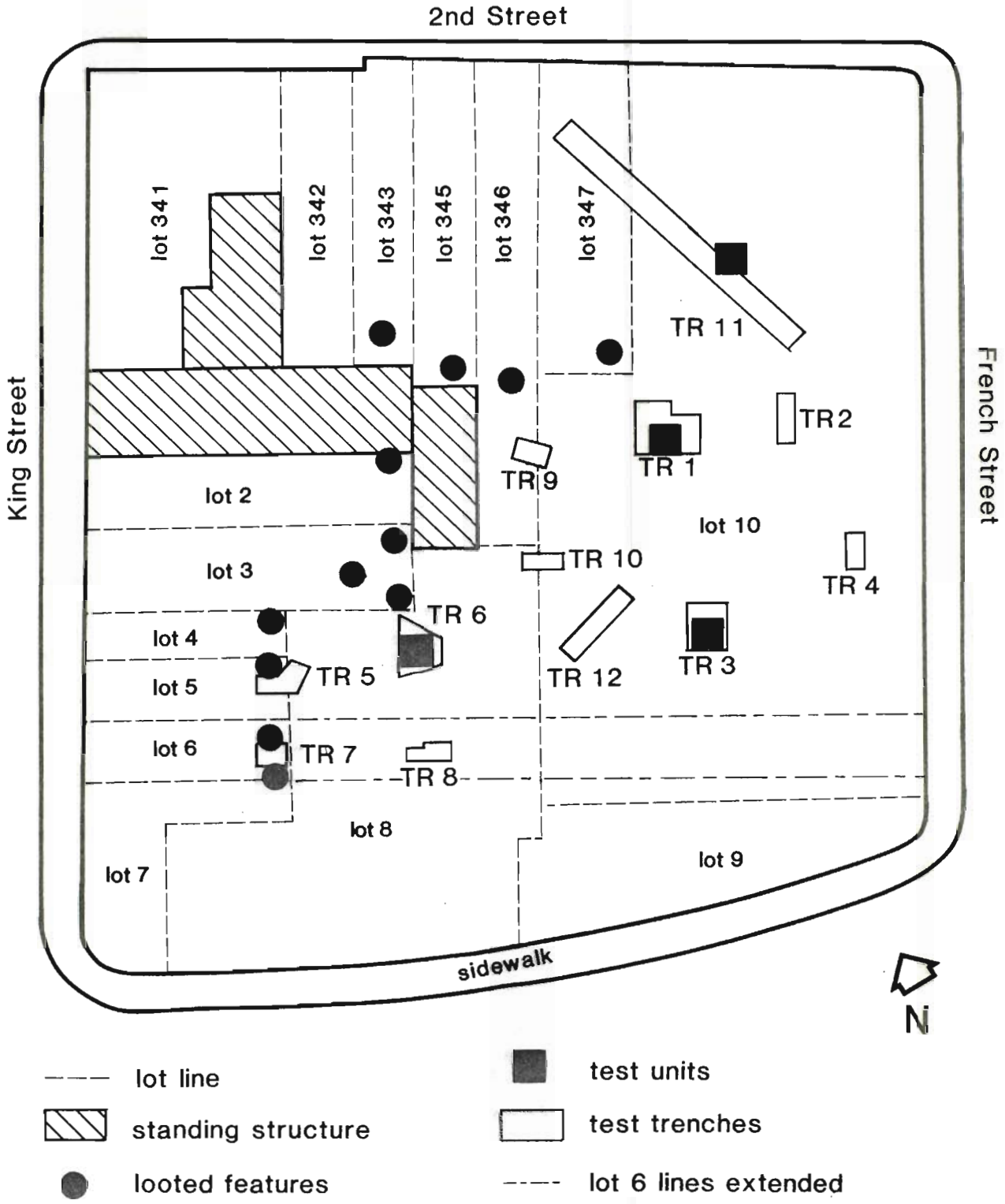
Lot 4--A feature which appeared to be concrete-capped privy was located, but not explored.

Lot 3--This lot contained both a brick-lined well and a possible privy pit. The former is noted as having been looted.

The basements of properties 3 through 7 were examined. No access was possible to the basements of Lots 3, 4, and 7. Those of Lots 5 and 6, located under additions, had been looted.

FIGURE 4

Block 1191 – Test Trenches and Known Privies



On Second Street, the MAAR team was unable to examine Lot 345 because it was still inhabited, but they noted the possibility of finding undisturbed features on this property. A brick cistern was located on Lot 343, only partially looted. Lot 346 had been disturbed by an unsuccessful attempt at looting and possibly contained undisturbed features. A brick-lined well was found in the backyard of Lot 247, partially looted.

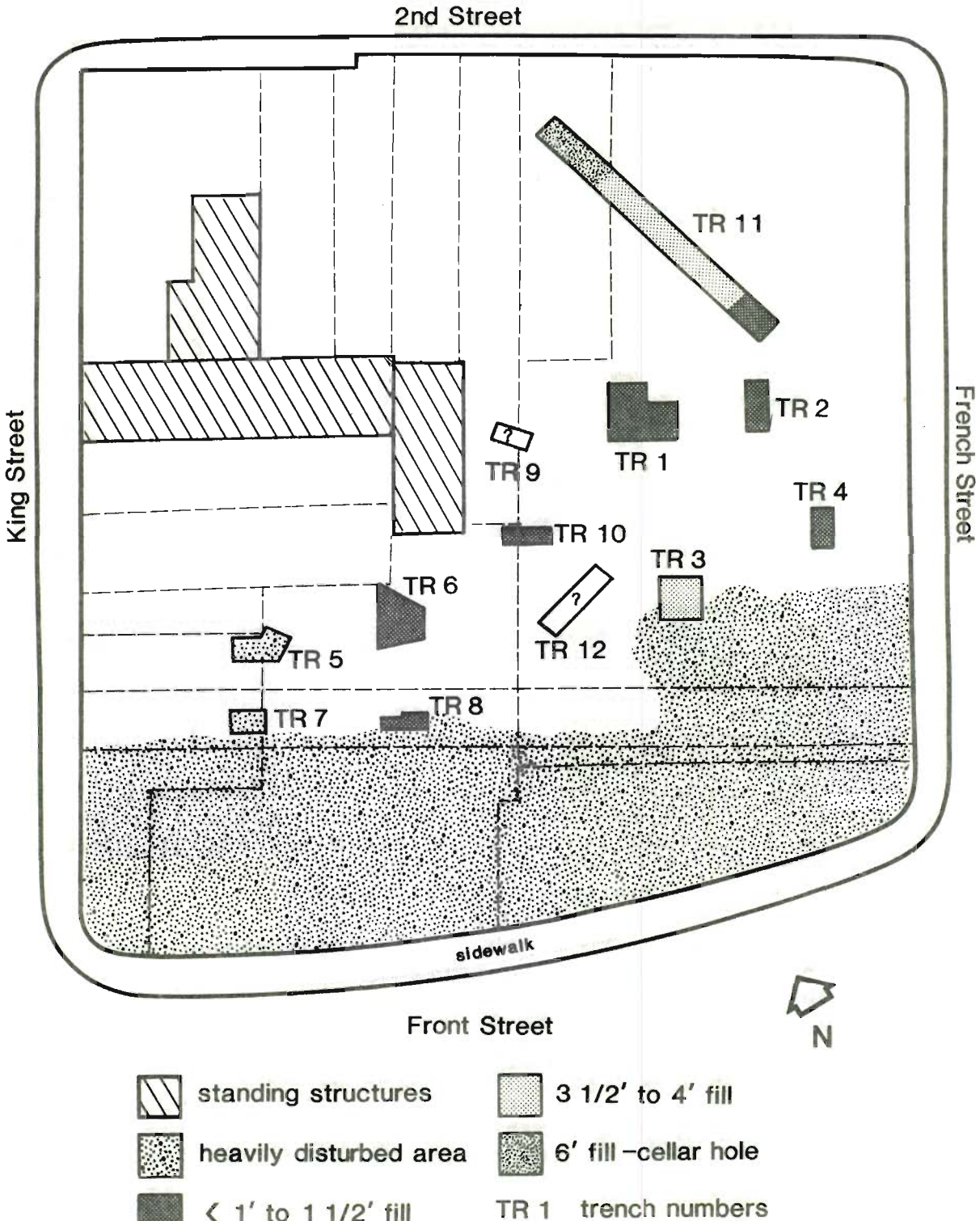
The MAAR field notes were incorporated into the report of the DelDOT survey and testing project on Block 1191 in 1980. A report of these activities has been abstracted from a larger report (Cunningham et al. 1984), and references here will be to the abstracted Block 1191 package only. In addition to the features found by MAAR, the DelDOT team recorded several other features pointed out by local informants. Both sets of features, as well as DelDOT's excavations, are mapped in Figure 4. The map shows a total of twelve features on nine out of the sixteen properties.

DelDOT's testing program concentrated on areas away from known looter activities. Specifically, the project was designed to test Lots 4, 5, 6, 8, 10 and 347 in order to assess the extent of disturbance which may have occured in these areas. Data concerning the present stratigraphy, extent of disturbance, and probable data range of likely contexts were recovered (Cunningham et al. 1984). Subsequently, in August 1980, the basement of Lot 7 (Ace's Restaurant) was examined, using a 2' x 2' test pit, nine shovel scrapes, and nine shovel tests. These last excavations yielded no artifacts or features at all (Cunningham 1980).

The stratigraphic profiles of the trenches and squares excavated by DelDOT show that the heaviest disturbance lies within the southern quarter of the block. The DelDOT archaeologists recommended that no further work be conducted in the southernmost 70 feet of the block (Cunningham et al. 1984:3). The line of demarcation between the heavily disturbed section to the south and the beginning of ground containing less disturbed deposits lies somewhere within the east-west extension of the Lot 6 boundaries (Figure 5). According to descriptions in the report cited above, Trenches 3, 7, and 8 exhibited the greatest amount of disturbance, but the north profile of Trench 8 indicated the presence of intact nineteenth century strata.

In the area to the north of the demarcation line, it is possible to construct a generalized profile of the block's stratigraphy. Modern asphalt and fill levels comprise the first one to two and a half feet below ground surface. Below the fill appear several strata containing organic materials and artifacts. The artifacts recovered were identified primarily as belonging to the nineteenth century, but Trench 1, Square 1 produced a stratum of late eighteenth-early nineteenth century material, and one eighteenth century delftware sherd was noted in Trench 6. The intrusion of Trench 11 into the Lot 347 besement revealed that

FIGURE 5
Disturbed Areas and Levels of Modern Fill



the basement had been filled to a depth of approximately six feet with demolition rubble. An intact barrel privy was located in the east wall of Trench 11 and preserved for future excavation. The late-eighteenth and nineteenth century occupation layers are composed of a sequence of fill deposits overlying the original land surface. This zone of highly organic "marsh muck" is the original occupation surface in the eighteenth century (Cunningham et al. 1984). The looted features inspected by MAAR reportedly contain artifacts dating from ca.1830 to ca. 1890 (Thomas et al. 1980).

In summary, Block 1191 was expected to yield artifacts dating from the eighteenth century to the late nineteenth century. A few undisturbed features remained, although most of the previously identified privies and wells had been looted. The portion of the block containing undisturbed occupation levels (the north three-quarters) was covered by one to two and a half feet of modern fill and demolition rubble. It is possible that, in addition to sealing historic occupational strata, the modern fill and rubble protected other depositional features from looting. Also, historic fill episodes would have covered features dug into previous levels. Therefore, it seemed likely that remains could be found on Block 1191 for the entire span of Wilmington's history. Archaeological data pertaining to the pre-Wilmington Agricultural Period (1630-1730) were less likely, but possible.

Goals of the Present Project

The Block 1191 Phase III data recovery project was viewed as an intensive and extensive excavation of a single block, with these excavations based on the DelDOT test excavations. The testing and excavation program on the seven blocks to the west provided a wider contextual basis. Much of Block 1191's cultural resources had already been destroyed by past demolition and rebuilding of structures on the block and recent demolition for urban renewal. Therefore, the primary strategy for the excavation was total salvage of information from the remaining intact archaeological contexts present on Block 1191. Appendix II contains the complete data recovery plan from which the following summary is abstracted.

Research generally focused on the block's interior--areas that would have been the backyards of structures facing the streets, and which have been shown by other investigators (Fairbanks 1975) to contain large quantities of artifacts and faunal remains with good contexts and minimal disturbance. Backyard privies, wells and middens are especially important on urban sites where many artifact-bearing contexts have been destroyed by demolition activities.

Even though the main project goal was salvage of significant data, excavations were directed by a research design. In this way, even though our intent was total recovery, significant contexts and categories of remains could be identified and the best use was made of the data which were recovered. There is an infinite variety of questions that may be asked in any given project, but "one of the most uniquely productive and important aspects of historical archaeology is its ability to test principles of archaeological interpretation under controlled conditions" (Deagan 1982:164). Given the large amount of documentation potentially available for use in studying urban inhabitants, we chose to focus the Block 1191 research on exploring the material cultural correlates of various social and economic characteristics of the inhabitants of the block through time.

Current research in historical archaeology on urban sites has combined documentary and archaeological evidence to classify groups of people and their assemblages into contrasting socio-economic and ethnic status categories. Changes in artifact and faunal assemblages through time are usually viewed as related to changes in status and lifeways brought about by urbanization and industrialization (see Staski 1982). Several of these studies, including the Wilmington Boulevard Project (Klein and Garrow 1984), proceeded from the fundamental assumption that analyses of artifacts, especially ceramics, can be used to place the owners of those artifacts into various socio-economic categories. In the Block 1191 Project, we made use of the opportunities provided by access to documentary evidence to develop a series of research questions to test this assumption by using the documents as an independent control for the archaeological data. In other words, rather than interpret economic and social status from artifact assemblages, we observed socio-economic characteristics directly in the historical record, and then compared known statuses to the material remains.

In developing this approach further, it is useful to summarize the hypotheses and results of the Wilmington Boulevard Project (Klein and Garrow 1984) and show how the Block 1191 Project is similar to and different from their procedures. The Wilmington Boulevard Project was directed toward data collection to support four hypotheses. Hypotheses 1 and 2 used both historical and archaeological data to investigate land use and residence patterns. Hypothesis 1 addressed the relationships between residential and commerical occupations of lots. Historical research found that, in the Wilmington Boulevard project area, multi-use structures, both residential and commerical, were most common from before 1800 until the middle of the nineteenth century, with an increase in single-use structures after the Civil War. Residential use of the lots within the project area predominated before 1800, but commericial use increased throughout the nineteenth century. By 1880, commerical uses predominated, but residential use persisted in structures

adjoining commercial properties or in combined residential/ commercial structures. The artifacts collected from the sample lots also reflected the mixed residential/commercial pattern in the project area (Klein and Garrow 1984:371-379).

Hypothesis 2 concerned the changing physical distance between residences occupied by different socio-economic groups and postulated increasing distance in the industrial period. As a corollary to spatial segregation of socio-economic groups, a decrease in the number of groups represented in the project area was proposed. The results of the historical research showed that socio-economic group stratification was not reflected in the spatial distribution of these groups, and the decrease in number of groups represented does not become apparent until the 1880's and 1890's. The Miller (1980) analysis of ceramics, used to measure socio-economic status archaeologically, was inconclusive because of the small sample size. Therefore, the archaeological patterns could not be used to support the documentary patterns (Klein and Garrow 1984:379-381).

The Block 1191 Project addressed the questions of land use and residential patterning directly by inspection of the relevant historical documents. Since this information formed the control data set for the archaeological research, it was not appropriate to develop hypotheses to be tested on this data set. We expected, however, to find that, while reflecting the overall homogeneity found by Klein and Garrow, the occupations of Block 1191 residents and the commerical activities taking place there would be directly related to the economic focus of Wilmington's waterfront. For example, in the period of shipping and shipbuilding, most Block 1191 residents had occupations allied to seafaring and ship construction and fitting. Commercial concerns were engaged in manufacturing or services supporting shipping and ship construction. A similar pattern was to be expected when the economy was refocused on the railroad.

The Wilmington Boulevard Project's Hypotheses 3 and 4 applied to analyses of ceramic and faunal data respectively. The hypotheses and test implications were directed towards comparing the relative costs of ceramics and meat from households of contrasting socio-economic status. The cost differentials were expected to increase between the pre-industrial and industrial periods, especially in comparing the upper and middle level groups to the lower. The results of ceramic and faunal analyses were inconclusive in addressing the hypotheses, but the authors felt the "the Miller analysis...clearly demonstrated its utility in study of socio-economic levels." Four households' ceramic assemblages were measured by Miller's cost index and placed, one each, into the lower level and middle level, and two into a middle to high level (Klein and Garrow 1984:328-389).

The data collected from Block 1191 was compatible with the analytical methods used on the Wilmington Boulevard Project, but

the focus was shifted to the control of socio-economic variables by documentary research and comparison of assemblages where status is held constant. The overall hypothesis that socio-economic differences are reflected in the archaeological record shall be addressed by first exploring how known differences are manifested. The model for this type of investigation is John S. Otto's study of status differences at Couper Plantation in Georgia (Otto 1975; 1977; 1980; 1984). Otto used documentary sources to analyze status differences among planters, overseers, and slaves, and assessed the implications of these differences in terms of differential access to material goods and food. Ceramic type and shape analyses showed that the planter's ceramic assemblage differed markedly from those associated with the overseer and slaves--transfer-printed versus banded, edged, and undecorated, and flatwares versus primarily bowls. Analysis of the faunal remains further revealed a correspondence between ceramic shapes and dietary patterns reflecting roasted meats, vegetables, and soups, prepared by cooks and served at the planter's table, in contrast to the overseer's and slaves's stews, cooked in a single pot and eaten from bowls. Otto's ability to associate these observed archaeological patterns with status differences depended on his ability to control for status independently. Of vital importance, as well, was the temporal control provided by the simultaneous occupation of the plantation by representatives of the three status groups (Otto 1977).

The Block 1191 occupants were characterized in terms of the use they made of properties -- as residences, business locations, or both--and direct observations of certain of their social and economic characteristics were made. Our ability to do this depended on our success in finding the appropriate information in documents available for Wilmington. Deeds, wills, census manuscripts, tax assessments, and the Wilmington City Directories were searched to find names and occupations of household heads, household composition, employment of other household members, amount of taxable real and personal property, nativity, and length of tenure on the block because occupation, wealth, and nativity were identified by Thernstrom (1973) as important measures of socio-economic status in urban environments. In addition, attempts were made to explore the possibility of finding block residents on the membership roles of various voluntary associations in Wilmington because Hoffecker (1974) has identified city-wide voluntary associations, such as churches, intellectual uplift groups, ethnic clubs, and service associations, as partially responsible for Wilmington's continuous, high level of social cohesion.

In searching out these characteristics, we sought to categorize the block's inhabitants according to social and economic differences and similarities. In doing this, contrasts among residents, based on historical evidence, were identified to point out where variation might be expected in the archaeological record. It was difficult to predict exactly how these socio-

economic differences would be expressed in material culture, but previous research was used to indicate analyses which could be useful (e.g., South's [1977] functional group analysis, Otto's [1975] ceramic type, and shape, and faunal analyses, Thompson and Beidleman's [1983] ceramic rank-order analysis, and Beidleman et al.'s [1983] analysis of function and type relationships).

Further research interests related to temporal changes in, and external influences on, the Block 1191 artifacts. The rise of domestic ceramic and glass factories in the nineteenth century (Barber 1971) increased the variety of tableware types and sources available. One effect of this may be seen in a gradual shift from local-artisan-made utilitarian wares to manufactured ones, such as the ovenproof yellow wares from Ohio and New Jersey factories. One reason for incorporating such questions into the research was to avoid the ad hoc attribution of observed differences in artifact assemblages to socio-economic differences.

In addition to comparing assemblages from Block 1191 with each other, we explored the possibilities of comparing Block 1191 to other sites in other cities. It was considered likely that interesting comparisons could be made with Bridgeboro, New Jersey, which remained an agricultural market center throughout its history (Thompson and Beidleman 1983), and Philadelphia, Pennsylvania. Other cities which provided comparable analyses included Alexandria, Virginia, Baltimore, Maryland, and Charleston, South Carolina.

Some of the research questions noted above defined the population characteristics that were addressed in our search for material culture correlates of socio-economic differences. The ideal situation would have been to have a priori documentation of the block's inhabitants on which to base hypotheses relating to the specific socio-economic characteristics present. However, since the conditions of the project did not accomodate the ideal, the research plan noted below was developed to allow collection of documentary and archaeological data sets independently.

The sequence of research was to first carry out deed and will research to delineate property boundaries through time. The boundaries of individual lots shifted through time according to changes in density of occupation and changing function of properties. Map research was also carried out and contributed to the research goals by pinpointing both lot boundary changes and changes in the size, shape, construction, and use of buildings on the lots.

It was important to conduct the deed, will, and map research prior to, or with minimal overlap into, the excavation. The comparison of material culture with known socio-economic characteristics depended in part on the ability to tie archaeological features to particular lots, and thus to those

inhabiting the lots. We were able to do this with some degree of accuracy by physically laying out lot boundaries on the site, using remaining structural features as clues to actual boundary locations. The vagaries of historic property surveys, including inaccuracies, changing widths of streets and sidewalks, made this difficult to accomplish on paper after the fact. In essence, it was imperative to know where features are located in relation to no longer extant structures and to property boundaries while excavations are in progress in order to make the best use of our resources in the field. A more complete description of the research methods used is provided later in this report.

Regional Environmental Setting

In order to understand the natural depostional and cultural processes which produced the archaeological record of Block 1191, it is important to consider the sites regional environmental setting. As is the case for many cities of the Atlantic Seaboard, Wilmington is located on the Fall Line, which is the transition zone between the mountainous and rolling Piedmont Uplands and the flatter Coastal Plain physiographic provinces. Listed below is a description of these physiographic zones based on the work of Custer (1984:23-25).

Piedmont Uplands/Fall Line Zone

The Piedmont portion of Delaware is characterized by a diversified relief dissected by narrow and deep stream valleys with isolated knolls rising above the general upland level. Within the Piedmont Uplands there are no large tributaries of the older incised river systems, the Susquehanna and the Delaware. Instead, there are a number of smaller drainage systems. Some large floodplains can be found along the Brandywine north of Wilmington; however, these areas are uncommon in the Delaware Piedmont. Elevation differences of up to 82 meters (270 feet) can be found between small floodplains of the numerous drainages and the tops of the adjacent knolls. These elevation differences are sufficient to cause changes in tree community distribution (Braun 1967: 192-94). Soils of the Piedmont Uplands can generally be characterized as well drained with some poorly drained areas in floodplains and upland flats.

Resembling a gigantic alluvial fan, the Fall Line zone represents a transition from the Piedmont Uplands to the flatter Coastal Plain areas in the southern part of the state. Streams flowing from the Piedmont with steep gradients reach the Fall Line zone, which is less steep, and drop their bed loads. At present, the bed loads of the Piedmont streams are quite small; however, at various times in the past these streams carried tremendous sediment loads and dropped gravels, cobbles, boulders, and the various sorted sands that make up the Columbia Formation.

This deposition created a series of well-drained soils and interspersed cobble beds in the vicinity of the Fall Line zone. Many of these cobble beds are present along the Christina River near the project area. Elevation differences range up to 52 meters (170 feet) from the floodplains of the White Clay Creek and Christina River to the edge of the Fall Line scarp. Water resources are abundant and are comprised primarily of the Christina drainage, a portion of which flows parallel to the Fall Line itself.

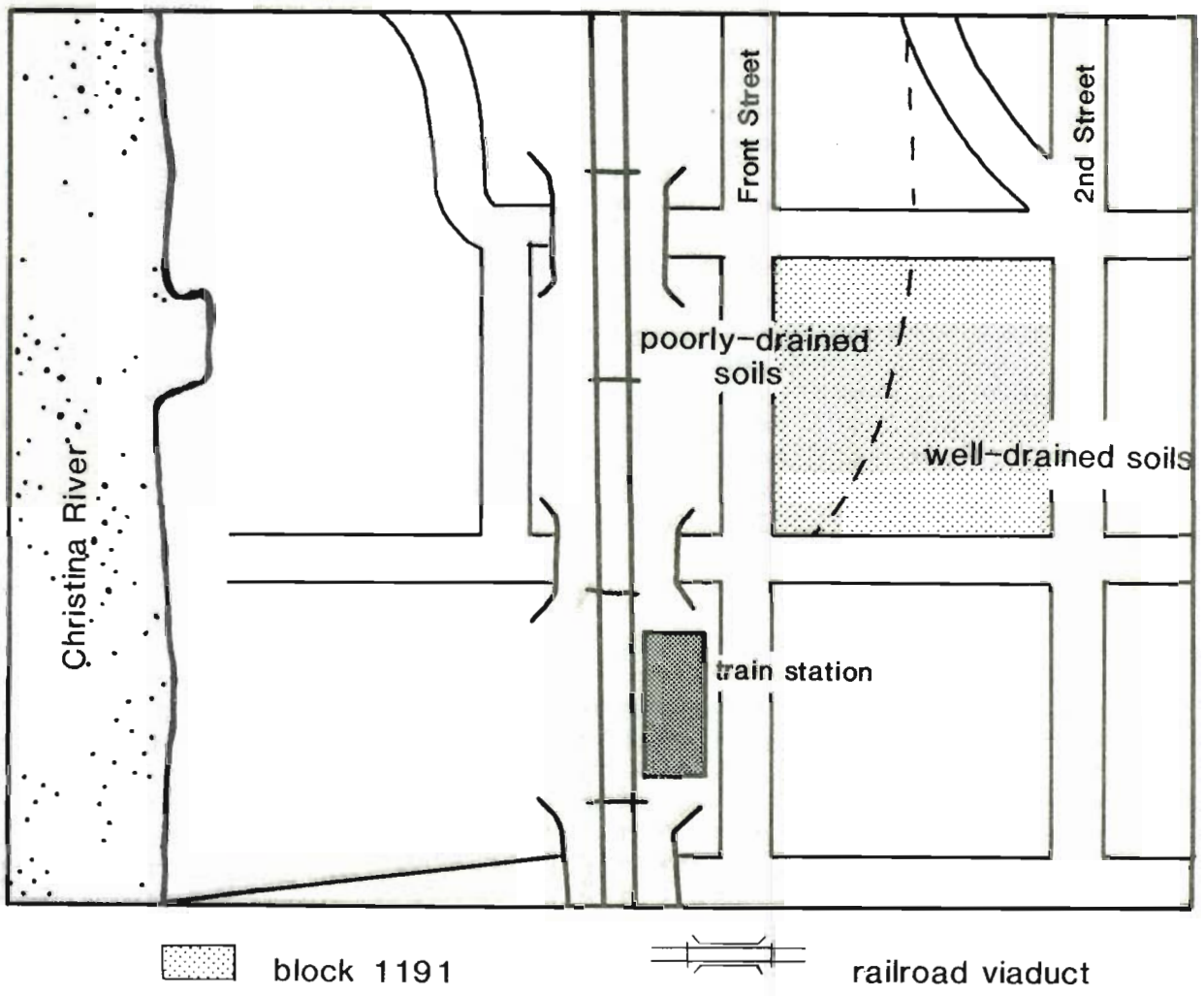
High Coastal Plain

Located between the Fall Line and the Smyrna River, the High Coastal Plain represents the southeastern extension of the very coarse glacial deposits of the Columbia sediments. In many areas, these coarse deposits resisted erosion, creating a rolling topography with up to 16 meters (50 feet) of elevation difference between the headlands bordering the larger streams and the adjacent floodplain marshes. Even though these elevation differences are considerably less than those noted for the Piedmont and Fall Line, they are great enough to significantly influence seasonal differences in plant communities (Braun 1967: 246-47). Water courses tend to be deeply incised and are lined by a veneer of relatively recent sediments that is thin along the upper reaches of drainages and thickens moving toward their mouths. Most streams are tidal and the saltwater/freshwater mix allows for a wide range of resources. Soils include a variety of well-drained and swampy settings that are distributed in a mosaic pattern across the region.

Specific Project Area Setting

Block 1191 itself is situated in the High Coastal Plain less than one kilometer south of the Fall Line. Previous excavations along Front Street (Klein and Garrow 1984) and on Block 1191 itself (Cunningham et al. 1984) have indicated that the sediments in this area include well drained soils on the higher elevations (Second Street side) and swampy poorly drained soils on the lower elevations (Front Street side). Figure 6 shows the modern distribution of soils. Most likely, the poorly drained soils represent the swampy, frequent floodplain of the Christina River. Previous studies along Front Street (Klein and Garrow 1984:101,102, 115, 138) note the presence of old, well developed clays of Pleistocene or Cretaceous age beneath the poorly drained organic soils. Swampy conditions were present in the frequent floodplains because flood waters would lay on top of these impermeable clays. The area between the middle of Block 1191 and the Christina River bank was probably a series of intermittent poorly drained swamps supporting a variety of brackish-adapted hydrophytic plant species throughout the prehistoric and early historic period. Habitation of these areas in historic times was

FIGURE 6
Modern Sediments



possible only after episodes of filling took place and numerous episodes of fill deposition are noted in earlier studies (eg. Klein and Garrow 1984:118-120). Interestingly enough, the impermeable clays which caused the swamps in the first place were often excavated and used as components of the new fill. These local clays were also seen to be part of packing of the privies discovered in our excavations, as will be noted later.

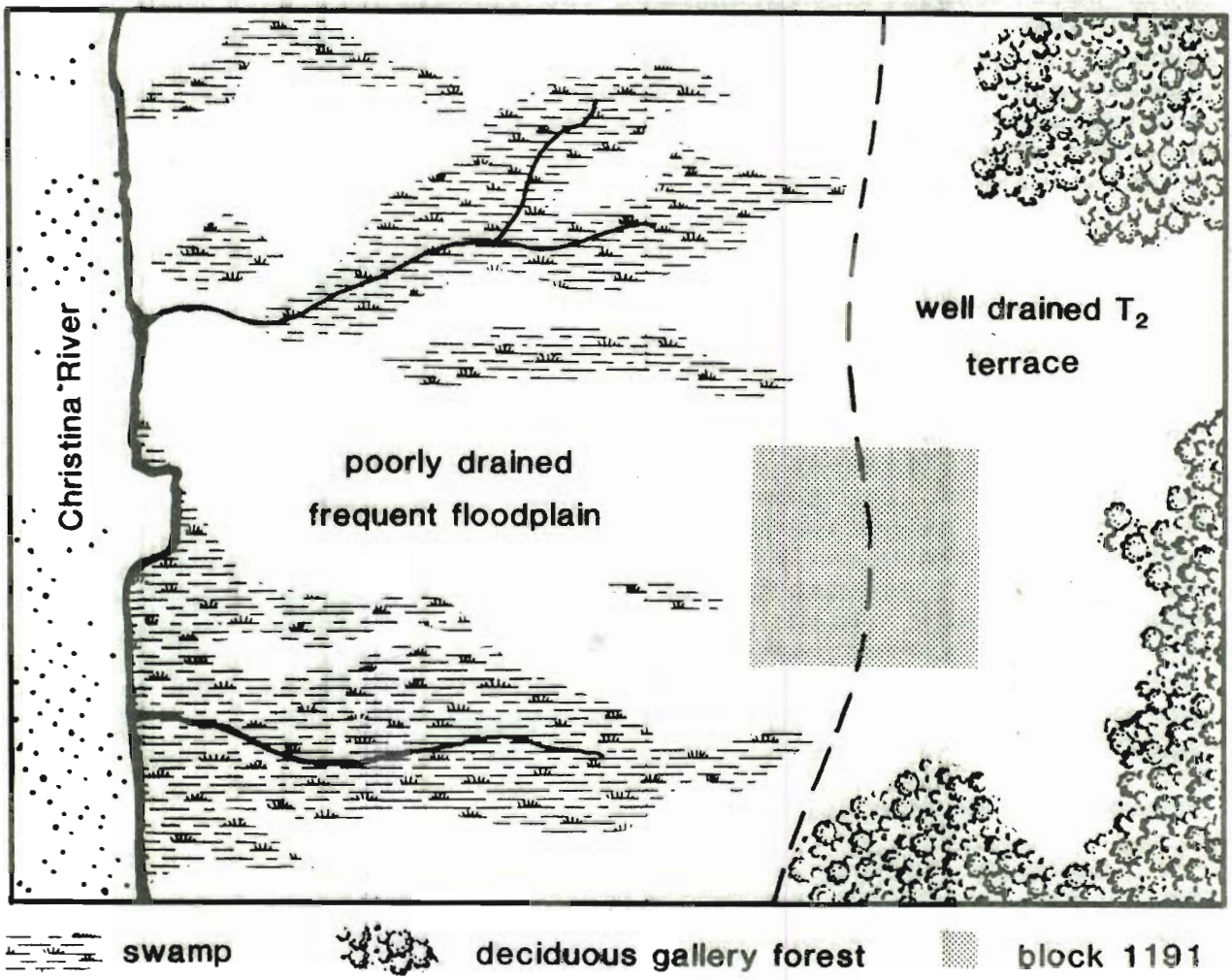
The well-drained soils adjacent to the poorly drained soils probably represent a T_2 river-edge terrace which would flood only very occasionally. Throughout the prehistoric time period, the local environmental setting was probably a deciduous gallery forest consisting of oak with some beech and hemlock. This forest community probably remained relatively constant throughout the Holocene, in spite of climatic changes, because the edaphic effects of the terrace settings were the main determinant of the plant communities.

In sum, prior to historic filling and development, Block 1191 was at the interface of poorly drained swamps and deciduous gallery forests on a terrace edge of the Christina River (Figure 7). As such, the study area would have been an especially attractive settlement site for prehistoric groups. The well-drained terrace would have been suitable for habitation and there is a good chance that small springs were present to provide fresh water. The frequent floodplain swamps would have been good hunting areas for game animals and birds, and was also a good location for gathering edible plants. Base camps and procurement sites may have been present. The study area is similar in its environmental setting to the Crane Hook Site (Swientochowski and Weslager 1942) which is located on the opposite side of the Christina River approximately 2 kilometers down river. It is also important to note that a large part of Block 1191 would not have been inhabitable during historic times until it had been filled and developed.

Regional Prehistory

Because there is a chance of finding prehistoric archaeological remains at Block 1191, it is important to understand the regional prehistory. In general, the prehistoric archaeological record of northern New Castle County area can be divided into four blocks of time: The Paleo-Indian Period (ca. 12,000 B.C. - 6500 B.C.), The Archaic Period (6500 B.C. - 3000 B.C.), the Woodland I Period (3000 B.C. - A.D. 1000), and the Woodland II Period (A.D. 1000 - A.D. 1650). A fifth time period, the Contact period, may also be considered and includes the time period from A.D. 1650 to A.D. 1750, the approximate date of the final Indian habitation of northern Delaware in anything resembling their pre-European Contact form. Each of these periods is described below and the descriptions are taken from Custer (1984).

FIGURE 7
Past Environments



Paleo-Indian Period (12,000 B.C. - 6500 B.C.) - The Paleo-Indian Period encompasses the time period of the final disappearance of Pleistocene glacial conditions from Eastern North America and the establishment of more modern Holocene environments. The distinctive feature of the Paleo-Indian Period is an adaptation to the cold, and alternately wet and dry, conditions at the end of the Pleistocene and the beginning of the Holocene. This adaptation was primarily based on hunting and gathering, with hunting providing a large portion of the diet. Hunted animals may have included now extinct megafauna and moose. A mosaic of deciduous, boreal, and grassland environments would have provided a large number of productive habitats for these game animals throughout Delaware, and watering areas would have been particularly good hunting settings.

Tool kits of the people who lived at this time are oriented toward the procurement and processing of hunted animal resources. A preference for high quality lithic materials has been noted in the stone tool kits and careful resharpening and maintenance of tools was common. A lifestyle of movement among the game attractive environments has been hypothesized with the social organizations being based upon single and multiple family bands. Throughout the 5500 year time span of the period, the basic settlement structure remained relatively constant with some modifications being seen as Holocene environments appeared at the end of the Paleo-Indian Period.

Numerous Paleo-Indian sites are noted for northern Delaware including hunting and processing sites near Hockessin and adjacent to the Wilmington Medical Center, possible quarry sites near Iron Hill, and isolated point finds. Paleo-Indian sites are not expected for the study area.

Archaic Period (6500 B.C. - 3000 B.C.) - The Archaic Period is characterized by a series of adaptations to the newly emerged full Holocene environments. These environments differed from earlier ones and were dominated by mesic forests of oak and hemlock. A reduction in open grasslands in the face of warm and wet conditions caused the extinction of many of the grazing animals hunted during Paleo-Indian times; however, browsing species such as deer flourished. Sea level rise is also associated with the beginning of the Holocene Period in northern Delaware. The major effect of the sea level rise was to raise the local water table, which helped to create a number of large swamps, such as Churchmans Marsh. Adaptations changed from the hunting focus of the Paleo-Indians to a more generalized foraging pattern in which plant food resources would have played a more important role. Large swamp settings such as Churchmans Marsh supported large base camps as indicated by the remains at the Clyde Farm Site. A number of small procurement sites in favorable hunting and gathering locales are also known in northern Delaware and may be present in the study area. The nearby Crane Hook site does contain a small Archaic component (Custer 1984:70).

Tool kits were more generalized than earlier Paleo-Indian tool kits and showed a wider array of plant processing tools such as grinding stones, mortars, and pestles. A mobile lifestyle was probably common with a wide range of resources and settings utilized on a seasonal basis. A shifting band-level organization which saw the waxing and waning of group size in relation to resource availability is evident.

Woodland I Period (3000 B.C. - A.D. 1000) - The Woodland I Period can be correlated with a dramatic change in local climates and environments that seems to have been a part of events occurring throughout the Middle Atlantic region. A pronounced warm and dry period set in and lasted from ca. 3000 B.C. to 1000 B.C. Mesic forests were replaced by xeric forests of oak and hickory, and grasslands again became common. Some interior streams dried up, but the overall effect of the environmental changes was an alteration of the environment, not a degradation. Continued sea level rise also made many areas of the Delaware River and Bay shore the sites of large brackish water marshes which were especially high in productivity. The floodplain swamps of the study area probably became brackish during this time period. The major changes in environment and resource distributions caused a radical shift in adaptations for prehistoric groups. Important areas for settlements included the major river floodplains and estuarine swamp areas. Large base camps with fairly large numbers of people are evident in many areas of northern New Castle County such as the Delaware Park Site, the Clyde Farm Site, the Crane Hook Site (which is close to Block 1191), and the Naamans Creek Site. These sites supported many more people than earlier base camp sites and may have been occupied on nearly a year-round basis. The overall tendency was toward a more sedentary lifestyle.

The tool kits show some minor variations as well as some major additions from earlier Archaic tool kits. Plant processing tools became increasingly common and seem to indicate an intensive harvesting of wild plant foods that may have approached the efficiency of horticulture by the end of the Woodland I Period. Chipped stone tools changed little from the preceding Archiac Period; however, more broad-bladed knife-like processing tools became prevalent. Also, the presence of a number of non-local lithic raw materials indicates that trade and exchange systems with other groups were beginning to develop. The addition of stone, and then ceramic, containers can also be seen. These items allowed more efficient cooking of certain types of food and may also have functioned as storage for surplus food resources. Storage pits and house features during this period are also known from the Delaware Park Site and the Clyde Farm Site. Social organizations also seem to have undergone radical changes during this period. With the onset of relatively sedentary lifestyles and intensified food production, which might have produced occasional surpluses, incipient ranked societies may have begun to develop, as indicated by the presence of

extensive trade and exchange and some caching of special artifact forms such as a large argillite cache at the Crane Hook Site (Custer 1984:10). By the end of the Woodland I Period a relatively sedentary lifestyle existed in northern Delaware. Any sites present in the study area probably date to this time period.

Woodland II Period (A.D. 1000 - A.D. 1650) - In many areas of the Middle Atlantic, the Woodland II Period is marked by the appearance of agricultural food production systems, however, in settlements of the Woodland I Period, especially the large base camps, were also occupied during the Woodland II Period and very few changes in basic lifestyles and artifact assemblages are evident. Intensive plant utilization and hunting remained the major subsistence activities up to European Contact. Similarly, no major changes are seen in social organization for the Woodland II Period of northern Delaware. Woodland II occupations may also be present in the study area.

Contact Period (A.D. 1650 - A.D. 1750) - The contact period is an enigmatic period of the archaeological record of northern Delaware which began with the arrival of the first substantial numbers of Europeans in Delaware. The time period is enigmatic because few Native American archaeological sites that clearly date to this period have yet been discovered in Delaware, although numerous Contact Period sites are evident in southeastern Pennsylvania. It seems clear that Native American groups of Delaware did not paricipate in much interaction with Europeans and were under the virtual domination of the Susquehannock Indians of southern Lancaster County, Pennsylvania. The Contact Period ended with the virtual extinction of Native American lifeways in the Middle Atlantic area except for a few remnant groups.

Regional and Project Area History

Because it is important to consider the historic archaeological remains of Block 1191 from a regional context, a discussion of the regional history is provided below. This discussion includes both a summary of the chronology of Wilmington area settlement and historic events and a sketch of the Wilmington City development as reflected on Block 1191. Sources for this section, when not stated, included New Castle County deeds, Orphans Court and Probate records, Federal Population Censuses (1800-1900), city directories, contemporary newspapers, Federal Writers Project Papers, contemporary publications and historic maps. Complete listings of the property transactions are summarized in Appendix III. Listings of inhabitants obtained from the city directories are contained in Appendix IV.

The first historic settlement in what is now Delaware was a whaling station established by the Dutch West India Company in 1630 near the present town of Lewes. However, this post was destroyed by Indians in 1631 and no settlement in that area was attempted again until 1659. A Swedish colony was established in 1638 at Fort Christina, near the present site of Wilmington, by the New Sweden Company. Although the land was claimed by the Dutch, it was little used and was unsettled when the Swedes arrived. By 1654 a small village, Christianahamm, existed behind the fort, and approximately 400 Swedish, Finnish, and Dutch settlers resided in the area.

In 1655, the uneasy coexistence between the Swedes and Dutch was abruptly ended when the Dutch seized control of New Sweden. Dutch Fort Casimir, established in 1651, and the town of New Amstel (modern New Castle) became the economic and commercial center for the lower Delaware Valley. Ownership of the Delaware region changed hands again in 1664, when the English took control of all Dutch possessions in the New World. In 1682, the granting of proprietary rights to William Penn and his representatives gave economic and political control of the Delaware region to Philadelphia, the new seat of government.

The settlement pattern for this early period was one of dispersed farmsteads located along the Delaware and its tributaries, such as the Christina, Appoquinimink, Brandywine, White Clay and Red Clay, where the land possessed good agricultural qualities. The Swedish and Dutch settlers had pushed their settlement far up the valley of the Christina toward the Elk River. The town of Christina Bridge, so named because it was the crossing place of that river, was established by about 1660 at the head of navigation of the Christina.

By 1683 the cultivated areas of the region consisted of the three lower counties, New Castle, Kent, and Sussex, and three Pennsylvania counties, Philadelphia, Buckingham (Bucks), and Chester. The total population of all six of these counties in 1683 has been estimated to have been about four thousand people. In New Castle County five tax districts, called Hundreds, had already been established by 1687. With the growth of the population, four more hundreds were created in 1710, with White Clay Creek Hundred being one of these.

With the exception of the port towns of Philadelphia and New Castle, there were no other major commercial or social centers in the area. The small hamlets that were established were situated on the major transportation routes of the period, almost always on a navigable river or stream. Few were located inland, for the road network was almost nonexistent. An exception to this was "Ogle's Town", which was located along the road to the Elk River as early as 1679. The villages of Christina Bridge and Cantwell's Bridge (present-day Odessa) were the only hamlets of any size in the area and both were located on major rivers and roads.

In the New Castle County region, water transportation was the major mode of travel and commerce in the late seventeenth century. Most of the farmstead tracts and land grants had frontage on a stream or water course to ensure that communication and the moving of produce to local markets could be accomplished. In a country that was heavily wooded with a mixture of oak, walnut, hickory, chestnut, and maple, water travel was the easiest, safest, and most effective means of transport. Overland travel was extremely difficult, because the roads were few and very poor. Even the road from New Castle to Christina Bridge, probably the area's major overland transportation route, was in horrible condition. Generally, the roads in the area were simply intra-regional connectors to the coastal towns.

Swedish settlers to the region grew rye and barley on their farms, but these grains were quickly replaced by wheat when it was found that wheat could be grown more easily. More importantly, it was realized that it was a marketable commodity, and the farmers and settlers in the area soon shifted from a subsistence-oriented to market-oriented agriculture. Wheat, and to a lesser extent corn, were grown and then shipped by water to local milling sites. The transportation of grains to milling sites supported an extensive coastwide trade employing shallops or other similar boats. These milling sites were among the earliest manufacturing complexes in the region.

Guerrant (1983:35-40) has termed the period of Wilmington's history from 1630-1730 the Agricultural Period. As was noted previously, Wilmington settlement initially consisted of clusters of impermanent structures associated with the Swedish Fort Christina. With the fall of Fort Christina to the Dutch, however, Christianaham had disappeared by the end of the seventeenth century. For the early part of the eighteenth century, the neck of land between the Brandywine and Christina Rivers was the site of a series of small plantations. Through time plantations slowly spread upstream along the Christina and Brandywine Rivers and several grist mills were established. Guerrant (1983:35-36) notes that wooden frame structures were the dominant house and outbuilding type, although special structures, such as Trinity Church, were built from stone.

The first deed references to the area that subsequently became Wilmington occur in the last quarter of the seventeenth century. In 1675 John Anderson Stalcup sold to Samuel Peterson 211 acres of land near the Christina River. This property descended by will through the Peterson family until 1727, when Andrew Justison exchanged a smaller plantation for Peterson's (New Castle County Deed Book H-1-99; hereafter cited NCD). Justison began to divide this into parcels of small sizes, ranging from about four to seven acres.

Settlement in New Castle County during the 18th century continued much as it had in the previous century. In the

Philadelphia region, there was a large influx of immigrants between 1725 and 1755, particularly Scotch-Irish, most of whom were indentured servants. As the transportation network improved, colonists began to move inland away from the navigable rivers and streams. Good, productive land was settled first, but as the population began to grow, marginal property was also occupied. The size of farms in New Castle County ranged between 100 and 200 acres, indicating a decline in size from the seventeenth century. This was due to a tendency for the large grants and tracts to be divided and subdivided by sale and inheritance.

The conditions of roads in New Castle County improved considerably over the course of the eighteenth century, but in some locations they were unsatisfactory even by contemporary standards. Most improvement was due to both population growth and interregional trade. By mid-century, the roadbeds of many of the area's present-day state roads (Routes 4,7,and 273; portions of Pennsylvania's Route 896) were already established.

Farming in the eighteenth century in New Castle County continued to be a system of mixed husbandry, combining the cultivation of grains with the raising of livestock. Farming was the most important occupation for between 80 and 90 percent of the area's population. Wheat remained as the primary grain produced, followed by rye, corn, barley, oats, and garden vegetables. In many areas, generations of repeated tillage had begun to exhaust the soil. Agricultural practices in New Castle County followed an extensive, rather than an intensive, use of the land (Lemon 1972:169).

Delaware's manufacturing capacity in this century began to be realized. During the eighteenth century, the iron industry, lumber products, and grain milling enterprises continued to grow and prosper. New industries were started that engaged in the preparation of snuff from tobacco, the production of salt from brines in lower Delaware, and the rudimentary beginnings of the textile industry. By the end of the century, Delaware was one of the leading manufacturing states and Wilmington and its environs constituted one of America's leading industrial areas.

In regards to urbanization, Lemon (1967) has divided the eighteenth century in the Philadelphia region into three periods of growth. The first period, from 1700 to 1729, was one of urban stagnancy after the initial rapid growth of the seventeenth century. However, hamlets - unplanned towns that sprang up at crossroads and around taverns, ferries, and mills - did begin to appear at this time. Ogletown is a fine example of the eighteenth century hamlet in New Castle County and was located at a crossroads on a major transportation route. The second period of urbanization that Lemon recognizes, 1730 to 1765, saw a renewal of town growth based on internal trade. Towns such as Newport, Cuckholdstown (modern Stanton), and Newark were

chartered and prospered during this period. Christina Bridge, stagnating since the 1680s, saw growth and prosperity as a major grain trans-shipment port for produce coming from the Upper Chesapeake Bay area.

Wilmington was by far the largest urban center in New Castle County that developed in this period. Chartered in 1739, Wilmington soon became a port of entry and a post town, and was an important link in the Philadelphia trading network. Of special significance to the city's location was its proximity to the Brandywine Mills. Wilmington was thus a receiving center for local and regional farm produce, brought by water from Christina, Stanton, and Newport, and shipped up the Delaware to Philadelphia.

Lemon's third period of urban development, 1766-1800, was marked by less noticeable town growth which paralleled more erratic economic patterns. Little growth in the towns of New Castle County took place during this period. However, an increase in population and land tenancy was noted (Lemon 1972:216).

Guerrant (1983:40-59) has described the time period between 1730 and 1830 as the Mercantile Period and this period saw the growth of Wilmington as a planned town with a formal grid of streets. The Market Street area became the core area of the city, along with sections of waterfront area along Front and Water Streets. Block 1191 is included in this area and lots in these core areas were probably more valuable compared to more peripheral areas. Within most blocks, residents were mixed among artisans, merchants, tavern keepers and laborers. Other lots were purely residential. Livestock was still present in urban areas and structures associated with their husbandry were probably present. Structures associated with tradesmen and crafts were also present.

Numerous changes in Wilmington's patterns of growth occurred throughout the Mercantile Period. There was an initial period of rapid growth of the urban area up to 1740; however, growth slowed up to the Revolution. For the most part, Wilmington acted as a trans-shipment point and its growth was retarded due to its proximity to Philadelphia, which dominated the economic life of the Delaware Valley. However, Wilmington's milling and shipping industries kept it from declining during the remainder of the 18th century. Also, even though its growth slowed, the city still grew, with its population doubling between 1740 and 1770. This population growth included a number of diverse groups, including free blacks, Swedes, Quakers, Methodists, and Baptists.

After the American Revolution, Wilmington merchants prospered due to increased trade, especially in flour. Up to 1810 the city grew at a more rapid rate and industries such as milling expanded. However, after 1810 there was a decline in

trade due to economic depression and the disruption of transoceanic shipping by the Napoleonic wars and the War of 1812. Through the remainder of the Mercantile Period, Wilmington's growth slowed appreciably.

The Benjamin Ferris map of Willingtown in 1736 (Figure 8) shows the block divided into five rectangular parcels. These lots, at the time of their purchase, extended from the Christina River to Second Street. From west to east, they were purchased from Justison by Samuel Scott (along King Street), Griffith Minshall, Samuel Pennock (two lots), and Thomas Willing (on "Willing Street," later French). Apparently Scott purchased his lot in 1731; the remainder of the buyers purchased lots in 1736. There were no dwellings on any of these lots, as the Ferris map indicates; these purchases were obviously considered as land investments and speculation by the buyers that Willingtown would grow.

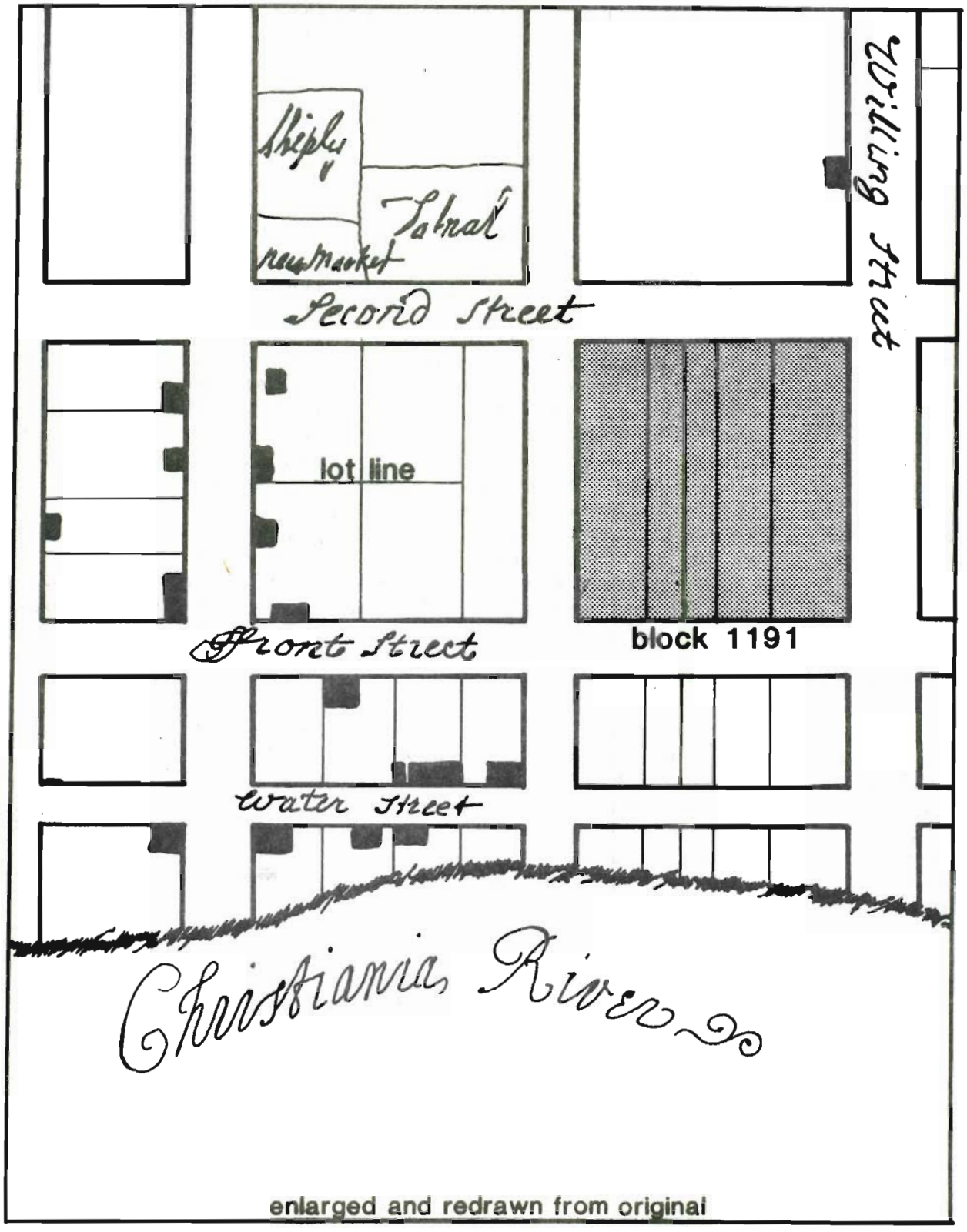
The King Street side of the block seems to have developed earliest. It was close to the economic center of Market Street, and had direct access to the wharves along the Christina River. Samuel Scott divided his holdings into several parcels, selling two to Richard Dockrill and two to Timothy Scott in 1736. Timothy Scott also sold a lot in 1737 to Joseph Way. The corner lot at Second and King was given by Samuel Scott to his son-in-law, Charles Bush, in 1739. Bush constructed a brick house at the corner, probably the first dwelling on the block.

The corner of Front and French was also divided. By 1740, Thomas Willing had sold off three parcels--one to John Hannum, one to William Temple, and one to Abraham Skinner. The purchase prices for these lots indicates that there were still no structures on the properties.

With the granting of Wilmington's charter in 1740, development of the block began in earnest. By the middle of the eighteenth century, the two corners of Front Street had structures on them, and the remainder of Front Street was being divided into smaller lots. The overwhelming majority of property owners were absentee landlords from a variety of locations. For example, Charles Bush sold his lot in 1752 to a Philadelphia merchant; Abraham Skinner, previously mentioned, was a New York City lawyer; William Temple was a Kennet Square farmer; and Griffith Minshall, though he was a Wilmington resident, did not live along Front Street on the block. This trend continued throughout the remainder of the century and into the first decade of the nineteenth century. It was indicative of the choice location of this block in relation to Wilmington's waterfront and its developing merchantile interests.

From 1750 until the start of the American Revolution, the ownership of the block was remarkably stable. During this period the King and French Street faces remained virtually unchanged,

FIGURE 8
Benjamin Ferris Map, 1736



enlarged and redrawn from original

with only some slight ownership modifications along Second and Front. There may have been as many as twenty houses on the block by this time, many with a lot reaching back to the middle line of the block. The Front and King Street sides were probably the most heavily developed, followed by Second Street and then by French. From the property records it appears that some of these early dwellings were brick. Few of these were owner-occupied.

By the beginning of the nineteenth century, this had changed somewhat. Absentee landlords still held much of the property, but several owners were living on the block, such as Matthew Boyd, a tailor, on Second Street, George Taylor and Jacob Robinson on King Street, and John and William Pogue along Front Street. French Street had a much more open appearance at this time and lagged behind the rest of the block in development. Caleb Seal, the brother-in-law of Samuel Bush, may have been partly responsible for this, since he operated a wood yard on the street. Those few people who resided on this street face were tenants. Based on the 1816 tax assessment, a relative ranking of the street faces by real estate values can be established (Table 2). From this, it appears that by the first decades of the century, Second Street had taken the claim as the preeminent street face from King Street. King Street's real estate values ran a close second, followed by Front Street's, and distantly by French Street's. The block still had a relatively open look about it, with about twenty-two brick and frame houses and as many lots. The majority of inhabitants--close to two-thirds--did not own their homes, but were tenants. Population size is difficult to determine for this period, but probably ranged between 60 and 80 individuals. The majority of the block's inhabitants were of English descent, with Irish being the next largest group. There were no recorded occurances of free blacks on the block throughout this period.

As with the rest of the Borough, many of the block's inhabitants lived and worked at the same address. This occurred mainly along Second, King, and Front Streets. Most of the businesses were artisan, craftsmen, service shops, or retail merchants, such as shoemakers, chairmakers, and coopers. Sea captains and merchants were also present. On the French Street side of the block, this was not the case; most of the tenants there were recorded as laborers.

In the northern Delaware area, the nineteenth century was marked by rapid industrial and urban growth and population expansion, and was accompanied by a noticeable decline in the number of people engaged in agriculture. The rapid growth of the population during the early decades of the century forced many new farmers in the Middle Atlantic area to clear and farm lands of poor or marginal quality. Many of these farmers were hard pressed to turn a profit from their farmsteads, and this resulted in an outmigration of a large portion of the population during

Table 2

Summary of Block 1191 Real Estate Values, 1816-1885*

YEAR	KING STREET	FRONT STREET	FRENCH STREET	SECOND STREET
1816	$3,283	$2,989	$2,250	$3,500
1845	$13,100	$5,400	$10,500	$11,150
1857-61	$12,600	$5,700	$7,300	$6,700
1866	$5,400	$7,250	$5,600	$8,100
1868-72	$9,350	$6,500	$6,400	$14,800
1877-81	$13,500	$8,900	$15,700	$22,700
1881-85	$11,600	$17,450	$14,100	$14,100
TOTALS:	$68,833	$54,190	$61,850	$81,000
AVERAGE:	$9,833	$7,741	$8,836	$11,571

* compiled from New Castle County Tax Assessments

the 1820s and 1830s to better lands to the west, particularly in the Ohio River Valley. The loss of jobs related to agriculture was partly offset by the development of new sources of income and employment, particularly in urban and industrial contexts. Thus, much of the surplus population that had in previous centuries been farm laborers, tenants, or unemployed, moved into urban and industrial centers where jobs were more plentiful. These trends occurred over the first half of the nineteenth century, and by 1860 were well established.

Urbanization in New Castle County during the first quarter of the century was closely tied to transportation routes and agricultural and industrial production. However, most of the towns of importance in the eighteenth century, which were settled because of their location on major transportation arteries, remained major marketing, milling and shipping centers for only a brief period into the nineteenth century.

In the first half of the nineteenth century, methods and routes of transportation underwent substantial changes in New Castle County, as first turnpikes, then canals, and finally

railroads were introduced. Throughout the century, improved transportation was the key to urban, agricultural, and industrial development.

The most significant canal built in Delaware was the Chesapeake and Delaware Canal, completed in 1829. Originally planned to connect the Elk and Christina Rivers, it was later constructed across the peninsula below New Castle, just north of Reedy Island. The canal was expected to bring wealth and prosperity to the communities of northern Delaware, and in fact, two new towns were constructed, Delaware City and Chesapeake City, at each end of the Canal. Instead of widespread prosperity, however, the canal contributed to the economic decline of Christina, Newport, Stanton, and New Castle, as goods previously shipped overland across the peninsula could now be sent more cheaply by water. Even Chesapeake City and Delaware City were disappointed in their expected economic boom, and growth in these towns was slow. Only Wilmington, fast becoming an important regional industrial town, benefited from the Canal. Although not the original purpose of its construction, the Canal also came to serve as a border between two distinct socio-cultural sections of Delaware: the industrial/commercial area of northern New Castle County, and the agrarian communities of southern New Castle, Kent, and Sussex Counties. The Canal would continue to serve as a border throughout the remainder of the century, and does so today.

Railroads came to New Castle County in the 1830's. The first line, the New Castle and French Town Railroad, was constructed in 1832 as a direct result of the opening of the Chesapeake and Delaware Canal, and was an effort to compete with that transportation route. In 1838, the Philadelphia, Wilmington, and Baltimore Railroad was completed, and quickly became the major transportation route across the peninsula. Throughout the remainder of the century, rail lines continued to be built in northern New Castle County, such as the Baltimore and Ohio, the Wilmington and New Castle, and the Wilmington and Western railroads. As noted previously, the towns of Newark, Stanton, and Newport benefited from their proximity to these railroads, staving off the economic stagnation and decline that were experienced by Christina, Ogletown, and Glasgow.

New Castle County continued to be predominately agricultural throughout the nineteenth century. At the start of the nineteenth century, however, agriculture in New Castle County was in a dismal situation. Farming practices continued much as they had during the previous century, with the use of the four field system of cropping, wheat as the dominant crop, the infrequent use of fertilizers, and the large number of tenant farmers working the land. Production was, on the whole, quite low during the first quarter of the century. The revival of the New Castle County Agricultural Society in 1818, one of the first such organizations in the nation, encouraged farmers in the use of

improved drainage techniques, fertilizers, and machinery. With these developments, New Castle County was on its way to becoming one of the finest agricultural counties in the United States by 1860. Fertilization, farm machinery, and improved drainage were helpful in this agricultural success, but the county's rich natural resources, its fine transportation network, and the proximity of cities were advantages with which other areas, particularly Kent and Sussex Counties, found it difficult to compete.

Tenant farming, which had been quite common in the eighteenth century, became even more prevalent during the nineteenth century. Large land owners, having acquired much of their holdings during the hard times of the 1820's and 1830's, leased their lands to tenants. Most land owners were white farmers, while some tenants and farm laborers, particularly in Kent and Sussex Counties, were black. In other cases, the tenant was a member of the land owner's family, as was the situation with the Robert Ferguson farm (Coleman et al. 1983). By 1900, over 50% of all the farmers in Delaware were tenants or share croppers. Tenancy remained a dominant farming practice into the twentieth century.

Regional development during the nineteenth century was much more complex than in the previous decades, primarily due to the great strides in industrialization, urbanization, and transportation that were part of the Industrial Revolution. The first half of the century witnessed a noticeable decline in Philadelphia's economic influence over the region, caused Baltimore's rise, the competition for markets between the two cities, and a drop in the consumption by foreign markets of Philadelphia's agricultural produce. The area responded by diversifying its agricultural production, but primarily it devoted increasingly more of its resources to manufacturing.

Much of the reemergence and success of both industry and agriculture in Delaware can be attributed to improved transportation facilities beginning in the 1830's. The linking of Wilmington by railroad with Baltimore and Philadelphia in 1837 provided not only Wilmington, but also its hinterland, with excellent markets, both for the purchase of raw materials and the sale of finished products. Contained within this hinterland was also a sizable population of skilled mechanics and machinists who were able to perform the skilled labor required by the new technologies. This combination of good transportation, a large labor pool, and a ready supply of raw materials allowed industry in northern New Castle County to grow and diversify very rapidly into the 20th century.

The period from 1830 to 1920 represents the Industrial Period (Guerrant 1983:59-74) and is characterized by rapid growth and dramatic changes in its social and economic structure. The rise of varied industries and commerical enterprises increased

wage-labor oportunities and created a large class of skilled and semi-skilled laborers. These groups swelled the size of the city's lower socio-economic class, and for the first time, distinct neighborhoods, segregated by socio-economic status appeared. Increased immigration by various ethnic groups, including German, Polish, Italian, and Irish, also contributed to the development of varied ethnic neighborhoods. At this time the black population of Wilmington also increased. The result was a varied and complex social structure which was expressed to increasing degree by physical and spatial separation. By 1890 the bulk of the population of Wilmington belonged to a class of the laboring poor, and only 10.2% of the city's population belonged to the "white collar middle class" (Guerrant 1983:23; Hoffecker 1974:170). Periodic recessions and population growth during the late 19th century exacerbated the plight of the urban laborer.

As industrialization developed, daily life and settlement changed. Residences became increasingly separated from the city's commercial core, which included Block 1191. Public services, such as water and trolley lines, became increasingly available and subsistence activities such as livestock husbandry disappeared from urban areas. On-site trash disposal also was slowly replaced by public trash removal services.

Around the time of the First World War, the industrial development process began to include an increased corporate, business structure. The DuPont company led this trend, and the result was an increase in the relative size of middle class managerial groups. Wilmington was also increasingly integrated into the national economy and modern lifestyles slowly emerged.

It is during the Industrial period that the most profound changes can be seen in Block 1191. Population size and composition, business types, housing types, and ownership all were reflective of the alterations of the block's urban environment. The arrival of the Philadelphia, Wilmington, and Baltimore Railroad in 1837 on Front Street permanently changed the character of that street face. Table 2 shows the relative real estate values for both sides of the streets in 1845, based on that year's assessments. It is obvious that Front Street values had dropped considerably from those of the 1810s. Lower income housing was found along this street face at mid-century, with several service businesses such as cordwainers, blacksmiths, and carters, located amongst the housing. The 1850 map of Wilmington by J.C. Sidney shows Front Street to be the most built-up of the street faces on the block. The 1845 assessment indicates that the majority of structures along Front Street were two-story frame houses, as indeed were most of the dwellings and stables on the block. As an aside, it should be noted that in 1840 the city had passed an ordinance prohibiting the further construction of frame houses, stores, and stables. The danger of fire in such congested areas of population was the obvious reason

for this ordinance. Its effect on the block is fittingly illustrated by this announcement in the May 30, 1848, issue of the Delaware Gazette:

> Fire: An old frame house, Front near French, very nearly destroyed by fire on Saturday morning last. The timely arrival of our energetic firemen alone prevented its total destruction, and perhaps several houses adjoining. The property belonged to William Pogue [and] was inhabited by several families who suffered in loss of most of their furniture.

In spite of this ordinance, frame structures remained the dominant house-type on the block until almost the end of the century.

French Street, by mid-century, was beginning to take on an aspect of business that it would retain for the next 60 years. Several transportation-oriented carters' businesses were located along both faces of this street, and the 1845 Street Directory records at least five men with this occupation located on the block. The close proximity of the railroad depot and the still busy Christina wharves were the causes behind this specialization. Tax values for French Street had correspondingly risen, as can be seen in Table 2, and were almost twice as high as Front Street. Because of these carting businesses and their need for space and stabling, French Street remained relatively open and had more vacant land along it than any of the other Street faces. Sidney's map shows only three structures on this block face.

King and Second Streets at mid-century were still predominantly residential. Many of the families on these streets had been present there for almost 50 years, such as the Robinsons and the McLears. Small shops, such as shoemakers and grocers, and service-oriented businesses, like blacksmiths and harness makers, were mixed in with the residences on these streets. The 1845 assessment for King and Second Streets show King Street to have had higher real estate values (Table 2). Like French Street, this probably related to King Street's location near the mercantile and business centers of the city.

The 1850 census records that approximately 40% of the block's houses were owner-occupied. This trend reached a high point in 1860, with over 52% of the houses owner occupied, then declined steadily for the rest of the century. By 1900 the percentage of owner-occupied homes was less than 10%, indicative of the social and economic decline of the old waterfront area of the city. Over 90% of the block's houses were rented, a much higher figure than the 69% for the city as a whole (Hoffecker 1974:168). Table 3 contains a summary of census information from the 1850 through 1900 censuses.

Table 3

Summary of Federal Censuses* 1850-1900

	1850	1860	1870	1880	1900
Percentage of home-owners on the block	40.0%	52.6%	40.7%	-----	9.7%
Percentage of renters on the block	60.0%	47.4%	59.3%	-----	90.3%
Total block population	78	121	155	177	193
Number of households on the block	15	21	27	----	31
Percentage of block population born in Delaware	71.8%	52.9%	58.1%	47.5%	45.1%
Percentage of block population born in U.S., other than Delaware	14.1%	29.8%	32.3%	44.0%	33.7%
Percentage of block population foreign born	14.1%	17.7%	9.7%	8.5%	11.2%
Number of white inhabitants [%]	78[100%]	118[97.5%]	155[100%]	168[94.9%]	180[93.3%]
Number of black inhabitants [%]	0[%]	3[2.5%]	0[%]	9[5.1%]	11[5.7%]
Number of Chinese inhabitants [%]	----	------	----	-------	2[1.0%]

* compiled from U.S. Federal Censuses, 1850, 1860, 1870, 1880, 1900.

The population of the block for the remainder of the century was dominated by native-born Americans, particularly those born in Delaware. The 17.36% foreign-born on the block in 1860 is comparable to the city-wide total of 18.86% for the same year. The block had a slightly higher percentage of native-born inhabitants in 1880(91.5%) than the total for the city (86.6%). This changed even more markedly by 1900, when 21.24% of the block's population were foreign born, as compared to 13.6% for the city as a whole (Hoffecker 1974:115, 116). Again, this is indicative of the general economic and social decline of the old city core and the arrival to the area of central and eastern European immigrants towards the end of the century. The number of non-white inhabitants on the block was, throughout this time period, negligible, reaching a high of eleven blacks and two Chinese in 1900. The blacks were all recorded in the census as laborers or domestics, and the Chinese as launderers.

Historic maps of Wilmington through the remainder of the century show the building and lot functions on the block to have become increasingly less residential and more commercial over time. By 1860, real estate values for King Street had begun to decline, and Second Street's values correspondingly rose. Of all of the street faces, Second Street's was the one that remained more domestic. The prominent family of John R. Marr lived at 108 E. Second Street, and they served as a residential and commercial anchor on the street. Marr was a native Wilmingtonian and an active member of the Lafayette Lodge of Masons. He was a flour, feed, grain, and commission merchant on the block (operating from 106 E. Second) from 1865 until after 1910. He was considered to be a "reliable dealer," and his merchandise included "flour, grain, hay and feed, rock salt, wheel grease and everything in this line." He had four assistants working for him, and had two teams of horses to deliver and haul his goods. In 1891 Marr was recorded as having an extensive trade, that "reaches all over portions of the peninsula and adjoining territory" (Anonymous 1891:205).

King Street, throughout the second half of the nineteenth century, was an area of small businesses and lower class residences. In the decade of the of the 1860s, at least three boarding houses appeared along this block face, many of the boarders being employees of James W. Birnie's shoe factory at 116 King Street. Birnie moved up-town within a few years, but the building that housed his factory was subsequently used as a cabinetmaker's factory, a carriage and car maker's factory, a furniture dealer's shop, and, by the turn of the century, a cornice works. Most of the inhabitants along King Street ran independent shops associated with their homes, or worked for one of the major industrial giants in the city, like Harlan and Hollingsworth.

Front Street followed a pattern similar to King Street's. The mainstay of this block face, beginning about 1874, was the

European Hotel, located at the northwest corner of Front and French (southeast corner of Block 1191). Later, after the death of its first proprietor in 1890, it was renamed the Merritt House (Plates 1 and 2). The hotel had a large clientele, many of whom resided at the hotel for long periods of time. These people included A. F. Messick, the clerk of the City Council, Joseph Hill of the dry goods firm of Crosby and Hill, several editors and reporters for Wilmington's newspapers, and many Baltimore and Ohio, and Philadelphia, Wilmington and Baltimore Railroad employees.

Other businesses on Front Street were like those along King Street--small-scale shops and stores, such as tobacconists, tailors and dressmakers, and grocers. Most of the residents on Front Street by 1870 did not work on the Street, but for some other large employer.

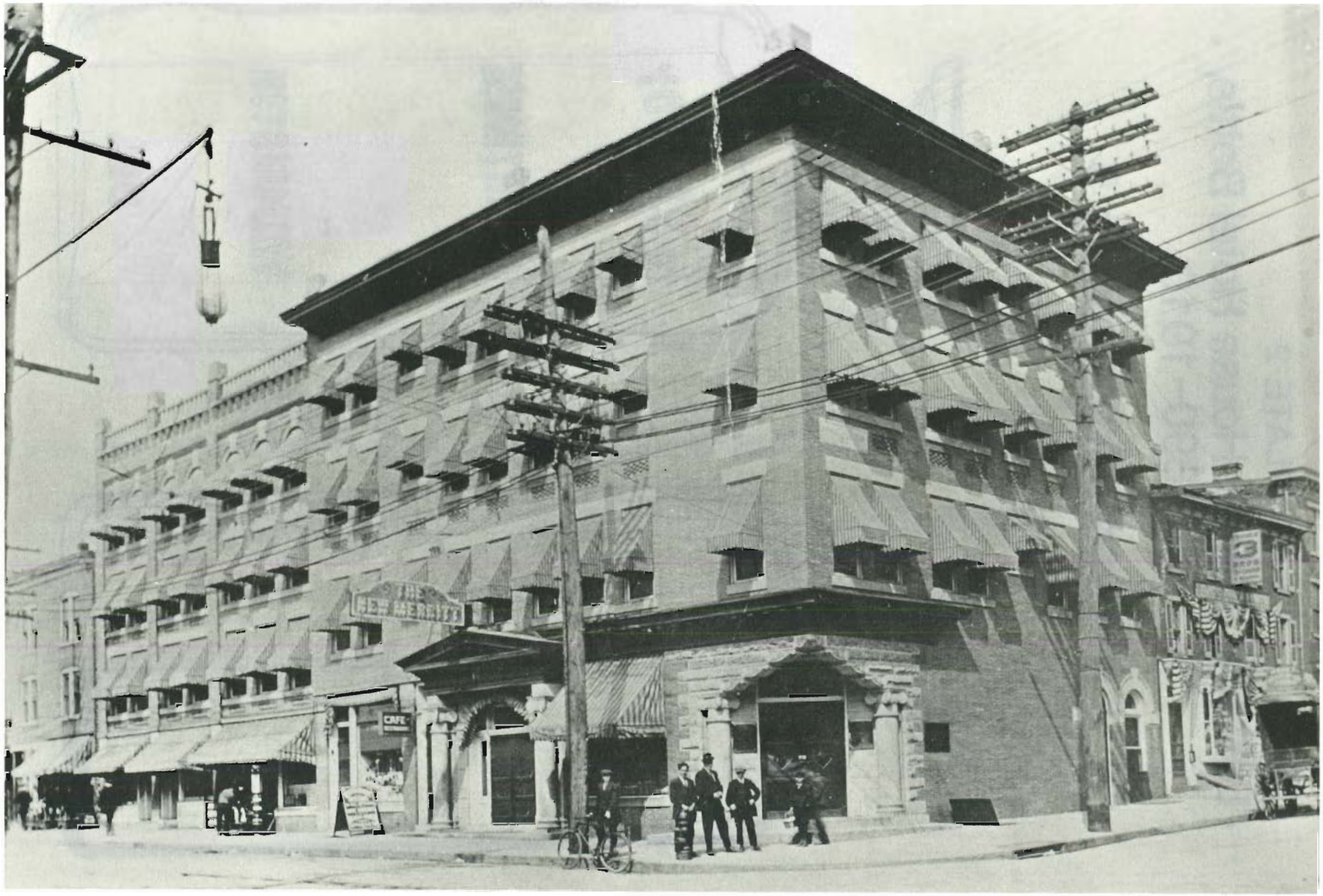
French Street, for the remainder of the Industrial Period, was much the same. The George W. Bush and Sons Stables and Yards, and Robert W. Smith's carting business were the major occupants of this block face. There were several tenant houses, where mostly persons of manual occupations resided. In spite of the large population of the city, and of the block as well, this street face continued to have more open land than any of the others. By the end of this period, the southwest corner of French and Second (northeast corner of Block 1191) had seen the most alteration, with the construction of a garage where Smith's business had been.

Tax assessments for this period show that Second street maintained its dominance of the real estate values on the block, but that by the turn of the century, the separate block faces were probably on a parity with each other. In general, over the entire period from 1816 to 1885, the ranking of the block faces was 1)Second Street, 2)King Street, 3)French Street, and 4)Front Street.

The preceding summary of regional history has shown that the Block 1191 was developed fairly early in the history of Willingtown. It was part of much of the early land speculation and mercantile growth that characterized the colonial town. Its street faces were developed at different times and at varying rates: King Street apparently first, followed by Front, Second, and French Streets. The block, although built upon for over 200 years, did not have its buildings as densely packed as other blocks closer to Market Street. This is particularly true on the French Street side, where businesses that needed open ground predominated. King Street passed through successive phases of residential and business-oriented structures, becoming increasingly commercial, and Second Street to a lesser extent did the same. Front Street, after the arrival of the Philadelphia, Wilmington, and Baltimore Railroad, became dominated by small scale businesses and traveller accomodations. French Street,

PLATE 1

Merritt House Hotel, ca. 1910



Courtesy of the Historical Society of Delaware, William P. Frank collection

PLATE 2

Lot 10A, Merritt House Hotel Bottle, ca. 1890–1910

recovered from feature 5

further from the central core of the city, never achieved the residential status that the other three block faces did. Throughout both the mercantile and industrial periods, the block's population was remarkable homogeneous. Only near the turn of the nineteenth century were a significant proportion of the inhabitants foreign-born. This trend did become increasingly more common in the twentieth century.

In terms of social status, the Second Street face and the King Street face were always considered to be the better locations for residences. Front Street held this position in the middle of the eighteenth-century, but the other two block faces soon predominated. The French Street block face was not considered a good residential area at any time in its history. Corner lots during both the mercantile and industrial periods were choice locations, regardless of block face.

The early history of the block witnessed a proliferation of absentee landlords. This trend was reversed in the nineteenth century, with owner-occupied houses peaking about 1860. After that time, a steady decline in the number of owner-occupants occurred into the twentieth century.

DATA COLLECTION AND ANALYSIS METHODS

Documentary Research

Documentary research in deeds, Wilmington City Directories and tax assessments was carried out primarily in order to identify the occupants of the house lots on Block 1191, and to gather information concerning social and economic characteristics of the households for which archaeological evidence was collected. The following is a discussion of the document sets used and the methods of data collection and analysis.

Deed Research Methods

The first step in tracing the chains of title for lots on Block 1191 was to consult the Wilmington City Registry Books in the Office of Public Works, City-County Building, Wilmington. These books were begun around 1874 and contain property line drawings of each block with boundary measurements and a record of lot ownership from at least the transaction resulting in the 1874 owner's possession of the property to the present. The deed book references are not included, but the list of names and dates helps fill in gaps in the chains of title obtained from deed records.

The tax assessor's office, also in the City-County Building, has modern maps of city blocks with current property boundaries. Their records also provide the deed reference for the latest